

**OBJECTIVES:** Medication adherence broadly describes the extent to which individuals comply with prescribed treatment. Many approaches are used to assess medication adherence, including formulas to measure dosing/frequency compliance and persistence over time. To provide insight into their appropriateness for population health research, this study compared several measures of medication adherence through a retrospective claims analysis of onsite pharmacies. **METHODS:** To cross validate and increase statistical power, multiple calculations were used to assess medication possession ratio (MPR) and percentage of days covered (PDC) among health plan members who used onsite or community pharmacies to fill prescriptions for certain chronic conditions. Additionally, the percentage of members without 30-day gaps in supplied medication and average days until discontinuation were calculated. The linear mixed model approach was used to gauge the onsite pharmacy's impact while adjusting for covariate effects. **RESULTS:** Across medication types, onsite pharmacy users demonstrated significantly higher adherence rates than community pharmacy users based on the calculations for MPR over 365 days ( $P < 0.0001$ ), MPR over 730 days ( $P < 0.001$ ), average PDC over 365 days ( $P < 0.0001$ ), percentage of members without 30-day coverage gaps over 180 days ( $P < 0.05$ ) and average number of days until discontinuation ( $P < 0.0001$ ). This trend was supported by the mixed model analysis that grouped all medication types and estimated that the covariate adjusted odds of greater adherence was statistically significant ( $OR = 3.44$ ;  $CI95\% = 2.84, 4.16$ ;  $P < 0.0001$ ). The formula for the percentage of members without 30-day coverage gaps over 1 year yielded few differences between groups. **CONCLUSIONS:** Characteristics of the study population, methodology and data availability will influence estimates of medication adherence. To best assess the full scope of medication adherence within a population, it is therefore recommended that a variety of measures be considered and reported in research studies.

#### PIH32

##### EXPLORING MEDICATION USE BEHAVIOURS: FINDINGS FROM A PILOT QUALITATIVE STUDY CONDUCTED AMONG COMMUNITY LEADERS IN THE STATES OF PERAK AND KELANTAN IN MALAYSIA

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**OBJECTIVES:** Irrational medication use is among major health problems that cause significant economic implications. Little attention has been paid to patient's belief and perception towards medications use. The aim of the study was to investigate drug use behavior among communities of Perak and Kelantan states in Malaysia. **METHODS:** Qualitative focus groups discussion was used in this study. Semi-structured interview guide was developed by the researcher after extensive literature review and reviewed by expert in that field. Purposive sampling was used to recruit seven participants from Perak and Kelantan state. The discussion was audio-taped and transcribed verbatim by two independent researchers. Transcript was then analyzed with deductive content analysis for qualitative data analysis. **RESULTS:** Five majors themes identified from thematic content analysis: (1) common health problem, (2) possible solution for common health problems, (3) source of medication, (4) factors associated with medication use behaviors, and (5) strategies to reduce medication use problems. The main underlying medication use problem was poor adherence. Factors associated with medication use behaviors were patient-related factors, therapy related factors and healthcare system factors. The Health Belief Model has been used to aid our understanding of the findings in this study. **CONCLUSIONS:** Misconceptions towards medication use still persist among the local community. Effective strategies need to be formulated in order to increase patient adherence towards medication since poor adherence cause decreased patient clinical outcome and cause the increased in healthcare cost.

#### PIH33

##### POSSIBILITIES OF CHILDHOOD VACCINATIONS

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**OBJECTIVES:** The aim of this research is to examine the factors which determine the vaccination in relation to the standpoint of the parents. **METHODS:** A descriptive, cross-sectional, prospective and quantitative study made in and around Pécs, Hungary. The research was carried out between 15 January, 2014 and 31 May, 2014. We evaluated 95 appraisable questionnaires that were completed by parents raising children between the age of 0-18. Descriptive statistics with frequency range, Chi2-test was performed with Microsoft Excel 2010. **RESULTS:** The information possessed by parents significantly shape their opinion on vaccination ( $p < 0.001$ ) while vaccination is 97.5%. Parents with young age (between 18-30) possess less information regarding vaccination than parents over 40 ( $p < 0.05$ ). 12.6% of the parents are not able to name the diseases which their children are being vaccinated; 27.3% of the questioned do not know the reactions and possible side effects to the vaccination which shows relation to the age ( $p < 0.001$ ). It is determinant for parents that in what degree the vaccinated disease exists and known at present ( $p < 0.00$ ). More than half of the questioned parents think that the knowledge they possess is not enough regarding the vaccines, while almost 100% would take part in an orientation. Parents attach importance to the advice of the GP and the health visitor. However, 50% of them seek answers to their question through the media. **CONCLUSIONS:** The information possessed by parents significantly shapes their opinion on vaccination but not the vaccination itself. Many of them do not know the disease specific effectiveness of the applied vaccination, possible side effects, and they do not apply the vaccination consciously. It is necessary to organize further comprehensive information sharing for the parents during an orientation, which is supported by the results of our research.

#### PIH34

##### PUBLIC PERSPECTIVES ON COST-RELATED NON-ADHERENCE AMONG PATIENTS

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**OBJECTIVES:** Cost-related non-adherence (CRN) is a highly prevalent phenomenon among patients; it is estimated that one-thirds of adult population resort to CRN under cost pressures, leading to declining health conditions. Currently there is a lack of studies that provide an insight into the issue using primary research data. The objective of this study was to explore public perspectives of CRN, assess the relevance of the associated factors, and provide future recommendations for effective strategies targeting CRN behaviors. **METHOD:** Using a descriptive, cross-sectional design, and convenience sampling, four focus groups were conducted among students aged 18 years and older at Long Island University (LIU), NY, during a two month period. Data obtained was analyzed using MS Excel and Nvivo. Permission for the study was obtained from the Investigational Review Board of LIU, and individual Informed Consents were obtained from participants. **RESULTS:** Using data from 36 consenting participants, it was concluded that medication costs was the number one reason for medication non-adherence in patients. Additionally, the factors 'out-of-pocket costs' and 'prescription coverage' were ranked 'extremely important factors' by more than half of the participants. Contradictory to the findings of a previous study, 'burden of chronic illnesses' was perceived to be major contributor to CRN as well. **CONCLUSIONS:** The study is unique since it helped understand the phenomenon of CRN among patients from the most important perspective, that of the public. Based on the ranking of important factors associated with CRN, future recommendations are made for effective strategies to ameliorate the high rates of CRN among patients.

#### PIH35

##### PREVALENCE AND PREDICTORS OF HEALTH RISK BEHAVIORS IN UNDERGRADUATE HEALTH SCIENCES STUDENTS OF KHYBER MEDICAL UNIVERSITY

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**OBJECTIVES:** The aim of the present study was to evaluate the prevalence and predictors of health risk behaviors in undergraduate health science students of constituent institutes of Khyber Medical University (KMU), Khyber Pakhtunkhwa, Pakistan. **METHODS:** This was a cross-sectional study conducted at four constituent institutes of KMU. Three hundred and eighty five undergraduate students selected through stratified random sampling were enrolled in the study. Health risk behaviors were assessed through pretested reliable and valid questionnaire. Statistical Package for Social Sciences (SPSS v 16) was used for data analysis. A p-value  $< 0.05$  was considered statistically significant. **RESULTS:** Of 385 students enrolled in the final analysis, 56% ( $n=215$ ) were males. Mean age of participants was  $21.05 \pm 1.79$  years. The most prevalent health risk behavior was insufficient consumption of fresh fruit (90.4%), milk (84.4%), fresh leafy vegetables (80.2%) and fresh fruit juices (75.1%), physical inactivity (72.3%), skipping breakfast (40%), watching excessive TV (19.3%) and benzodiazepine abuse (9%). Upon cross tabulation, statistically significant association was observed between male gender and cigarette (p-value  $< 0.001$ ) and hashish smoking (p-value=0.041), while female gender had statistically significant association with benzodiazepines abuse (p-value=0.022) and physical inactivity (p-value=0.016). Statistically significant association was also observed rural residence and cigarette smoking (p-value=0.006). **CONCLUSIONS:** The findings of the present study highlight the need of preventive measures to avoid health risk behaviors in health sciences undergraduate students. The constituent institutes of Khyber Medical University should promote healthy life by arranging health promotional activities, seminars and workshops.

#### PIH36

##### THE VALUE WOMEN PLACE ON MENOPAUSAL SYMPTOM RELIEF

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**OBJECTIVES:** Menopausal symptoms can cause significant distress to women, yet little is known about the value women place on these symptoms. **METHODS:** In April 2013, 3397 US women, ages 40 to 69, completed an online survey that included 30 paired comparisons. Specifically, respondents were shown two menopausal symptoms described using the Patient-Reported Outcomes Version of the Common Terminology Criteria for Adverse Events (PRO-CTCAE) and asked, "Which do you prefer?" From their choices, we estimated a generalized linear model to assess values women place on symptom relief in terms of quality-adjusted life years (QALYs). **RESULTS:** The majority of respondents (1753 of 3397; 52%) always preferred reduced lifespan (up to 90 days) instead of experiencing menopausal symptoms at their worst for 30 days. For a majority of the symptoms (248/263; 94%), including low-grade events, QALYs were significantly reduced (p-value  $< 0.05$ ). The value women placed on relief ranged widely by symptom domain: the relief of depression, problems with memory, headache, pain in abdomen, problems with anger, and vomiting were the most valuable. **CONCLUSIONS:** Overall, the value women place on menopausal symptom relief is surprisingly high. As the first national study to directly ask women about their preferences and to estimate the value of menopausal symptom relief on a QALY scale, this work provides critical evidence for health outcomes research in mid-life women and can be applied in the evaluation of treatments that reduce or eliminate menopausal symptoms. This work also provides proof-of-concept for an approach to value PRO-CTCAE responses on a QALY scale.

#### PIH37

##### PREVALENCE AND LOSSES IN QUALITY-ADJUSTED LIFE YEARS OF CHILD HEALTH CONDITIONS: A BURDEN OF DISEASE ANALYSIS

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